

DVB Satellite Receiver UFS 301si



KATHREIN

Antennen · Electronic

Foreword

Dear customer,

This Operating Manual is intended to help you make the fullest use of the extensive range of functions offered by your new satellite receiver.

We have tried to make the operating instructions as easy as possible to understand, and to keep them as concise as possible.

The power switch is an environmentally friendly feature. If you will not be using your receiver for a longer period, you should therefore use the power switch to disconnect it from the power supply to save energy. For shorter breaks, you can switch the receiver to standby on the remote control, which uses only a minimal amount of energy.

We wish you good reception and much pleasure using your new DVB Sat receiver.

Your

KATHREIN Team

Important Information

If you unexpectedly encounter problems with your receiver, please contact your authorised dealer.

The programmes available on the satellites and transponders are subject to continual change. This means the channel presets have to be regularly updated, though the factory presetting always represents the latest updated version. The information for this reset can be found on the Internet or in relevant magazines.

Your receiver is factory fitted with the latest software version. We are, however, constantly working on adapting the software to the wishes of our customers and to developments in technology. The "Software Update" section provides more information on this.

Please retain the original packaging in case you need to return the product at any time.

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Connection and Setup

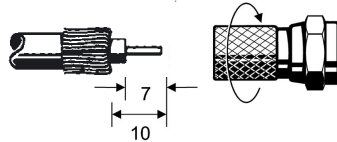
The following section is intended specifically for specialist dealers. You only need to read this section if you are carrying out the installation yourself. The “Connection Diagram” section contains a sample configuration. Do not connect the unit to the mains until all installation work has been properly carried out. Please also refer to the section “Safety Instructions”.

Connecting the Unit Sat IF Connection

Connect the Sat IF input on the receiver to the satellite reception system.

Use a coaxial cable with a standard F connector.

If the F connector is not yet fitted to the cable, strip the insulation from the cable as shown in the following illustration and carefully twist the F connector onto the end of the cable until it is securely fitted to the cable.



When fitting the connector, make sure that no wires from the braiding are touching the inner conductor, so no short circuit can occur.

The quality of the reception signal depends on this connection.

Reception Requirements

Ensure that your satellite antenna system is designed for digital reception in the high-band range.

Reception System Presets

The presets for the control signals have been made for standard reception systems, i.e. 14/18 V for polarity reversal and 22 kHz switching signal for low/high band changeover. Be sure to follow the operating instructions for the matrices used.

The parameters set in the DiSEqC™ menu should only be altered by experienced installers.

Connection and Setup

TV Connection

Connect the satellite receiver (TV Scart socket) to the TV set with a Scart cable.

If your TV has a stereo feature, you can receive the sound in stereo via the Scart connection.

Connect the satellite receiver to the video/DVD recorder with a Scart cable.

Audio Connection

If you want to play the sound on your hi-fi system, connect the audio cinch sockets to the input sockets on the hi-fi system with an appropriate cable.

Dolby Connection

The Dolby Digital data stream output (AC 3) is intended for connection to a Dolby digital system.

IR Receiver

If the receiver is not set up within the reception range of the remote control's infrared signals (concealed installation), connect the infrared receiver to the "IR SENSOR" socket and position it so that you are in sight of the remote control.

Inserting Batteries in the Remote Control

Remove the cover on the rear of the remote control.

Insert the two supplied batteries into the remote control. Ensure correct polarity of the batteries; the + and - markings are indicated inside the battery compartment.

Slide the cover back into the housing until it locks in place.



Spent batteries are special waste.

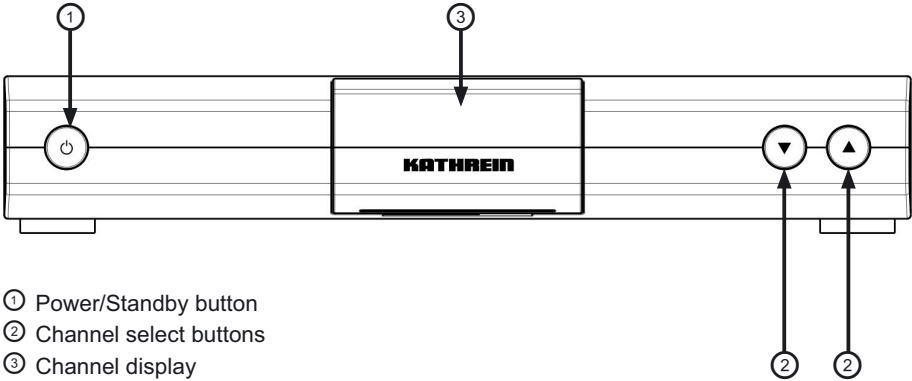
Do not throw spent batteries into your household waste; take them to a collection point for old batteries.

Electronic equipment is not household waste - it must be disposed of properly in accordance with Directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL dated 27th January 2003 on waste electrical and electronic equipment (WEEE).

At the end of its service life, please take this unit to a suitable public recycling centre for proper disposal.

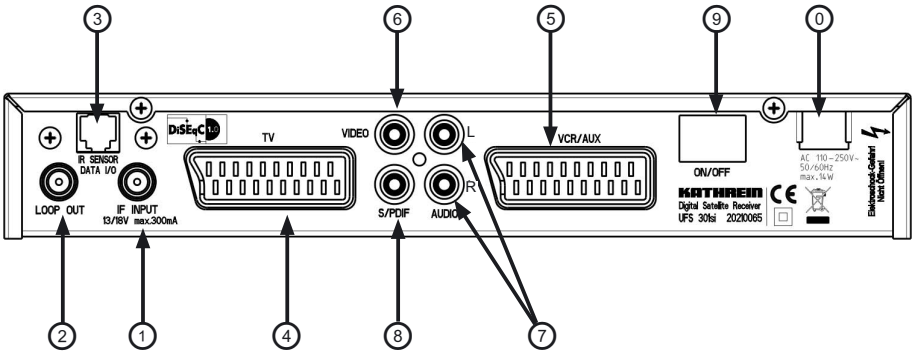
Views and Connections

Front view



- ① Power/Standby button
- ② Channel select buttons
- ③ Channel display

Rear view

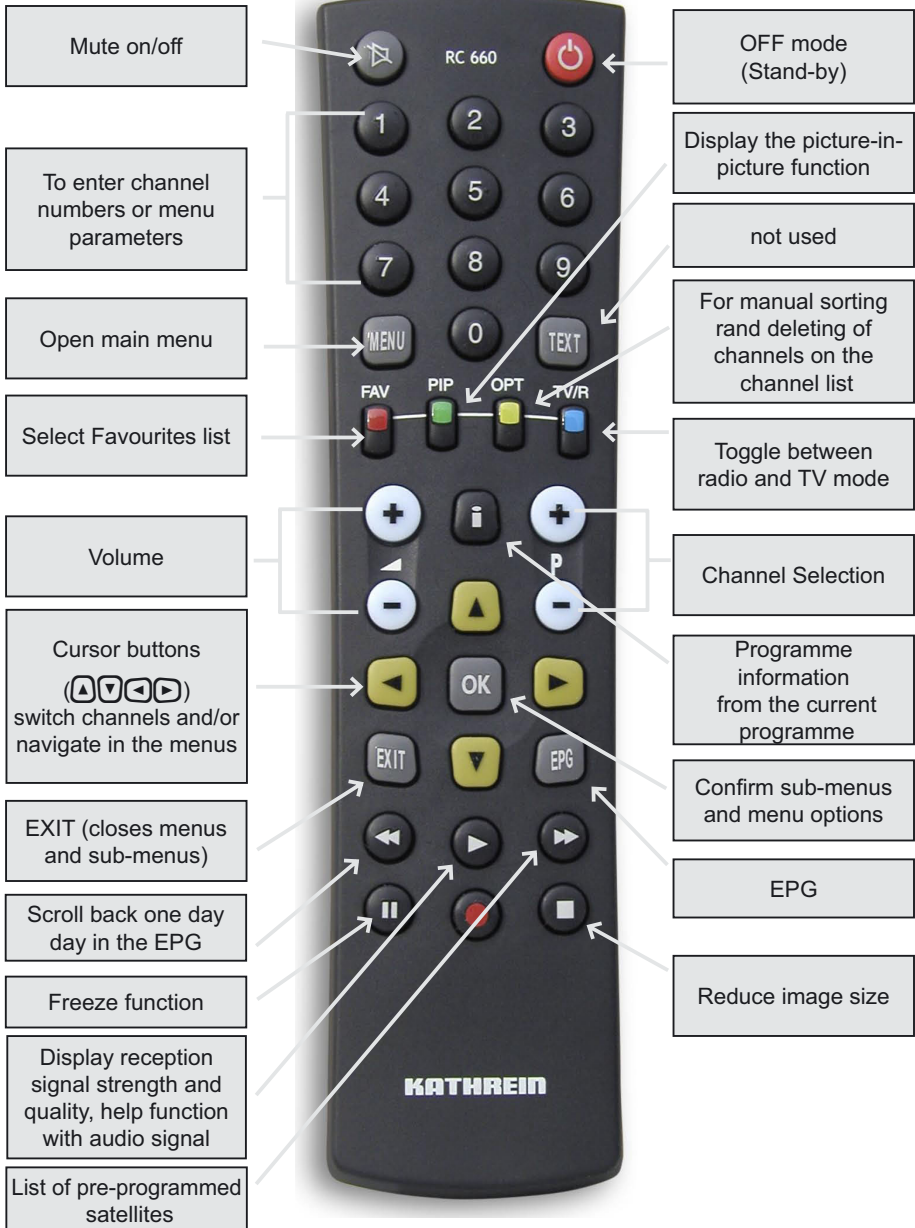


- ① SAT IF input socket
- ② SAT IF output (looped-through signal)
- ③ IR sensor connection socket and data port for serial data transmission (standard RJ11)
- ④ Scart connection for TV set
- ⑤ Scart connection for video recorder
- ⑥ Video output cinch socket
- ⑦ Audio outputs for stereo system (left and right): Cinch sockets
- ⑧ Dolby Digital data stream output (AC 3): Cinch socket
- ⑨ Power switch (On/Off)
- ⑩ Mains power cable

Remote Control




Remote Control Function Buttons



The button symbols shown here will also be found in the description of the operating steps.



Remote control

Using the Remote Control

Press the  button to confirm settings in the menus or to open sub-menus. Change the settings line by line and press the  button to save your changes. Press the  button to quit the menu or to switch from a sub-menu to the next higher menu level.

Use the  buttons to navigate through the menus. Use the  buttons to edit the individual fields. You can also key in settings in the fields using the number pad.

The coloured buttons are used for the functions within the various sub-menus. These functions are displayed on screen for the individual menus. In each menu, a line is displayed at the bottom of the screen explaining the various functions that are available.

Safety Instructions

This page contains important information about the operation, installation location and connection of the unit.

Read these instructions carefully before starting to use the unit.



DANGER!

Mains cable

Make sure that the mains cable (power supply cable) is not damaged. Units with a damaged mains cable must be disconnected from the mains (disconnect mains connector) and repaired by a qualified engineer before setup. Only use the power pack supplied (if available).

Risk of death due to electric shock.

Cleaning

Disconnect the mains connector before cleaning the unit. Only use a dry cloth for cleaning and only clean the outer surface. Never open the unit.

Touching the parts inside the unit carries a risk of death due to electric shock.

Playing children

Make sure that children do not push any objects into the ventilation slots.

Risk of death due to electric shock.



WARNING!

Earth connection

The antenna system must be earthed as specified or equipotentially bonded. EN 60728/11 and any national regulations must be complied with.

Danger due to surge voltages, lightning strikes.

Mains voltage

Only operate the unit with the specified mains voltage (marked on the rear of the unit or on the external power pack). The unit may only be connected to the mains and turned on once it has been connected to the antenna and to the TV set or the cable network and PC.

If the mains voltage is too high, there is a risk of fire.

Repairs

Ensure that any repairs to your unit are carried out by qualified personnel. Opening the unit and attempting to repair it yourself voids all warranty claims.

Improper work on the unit can jeopardise the electrical safety of the unit.

The manufacturer accepts no liability for accidents caused by the user opening the unit.



CAUTION!

Connections

Incorrect wiring of the connections can lead to malfunctions or defects on the unit.

Long periods of absence / storms

Always turn off the unit at the mains switch if you will be absent for a long time or there is a storm. If your unit does not have a mains switch, you can disconnect it from the mains by unplugging the mains connector. This also applies to the other equipment connected to the unit. Isolation from the cable network is also recommended. Note any timer programs (receiver) and turn the unit on again promptly before the recording time.



Installation location

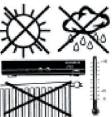
All electronic equipment generates heat. However, the heating of this unit lies within the permissible range. Sensitive furniture surfaces and veneers may become discoloured by the effects of constant heat over time. The feet of the unit can also cause colour changes to treated furniture surfaces. If necessary, place the unit on a suitable stable and flat base.



Ventilation

The heat generated in this unit is adequately dissipated. However, the unit should never be installed in a cupboard or on shelves with inadequate ventilation. Never cover the cooling slots on the unit (e.g. with other equipment, magazines, tablecloths or curtains).

Do not place any objects on top of the unit and maintain a clearance of at least 10 cm above the unit, so that the heat generated can be dissipated with no obstructions.




Moisture, sunlight, heat




Protect the unit against moisture, dripping and splashed water (do not place any filled objects such as vases on top of the unit). Do not place the unit close to a heater or expose it to direct sunlight and do not operate it in damp locations. Only use the unit in a moderate climate, not in tropical conditions.

Operation

Channel Selection

The receiver is shipped with the most popular satellites programmed in to it. For perfect reception, your antenna must of course be aligned to one or more of them.

Press the  button to see the list of pre-programmed satellites.






Select the satellite with the   buttons and press . The receiver shows the list of channels available from the selected satellite. No printed channel listings come with the receiver.



Select the channel with the   buttons and then press the  button.

Note:

You can also view a satellite's channel list simply by pressing .

Press the  button to switch from the TV list to the radio list, and press the  button to view your favourites (4 lists). Scroll through these lists using the   buttons. Press the  button to hide the list.

Operation

Channel Information



When you switch channels the following information is displayed on-screen:

- Channel type: TV or radio
- Channel number and name
- EPG (Electronic Programme Guide) reception is indicated by the letter "E"
- Videotext (Teletext) reception is indicated by the letter "T"
- Current channel being received, time and satellite name

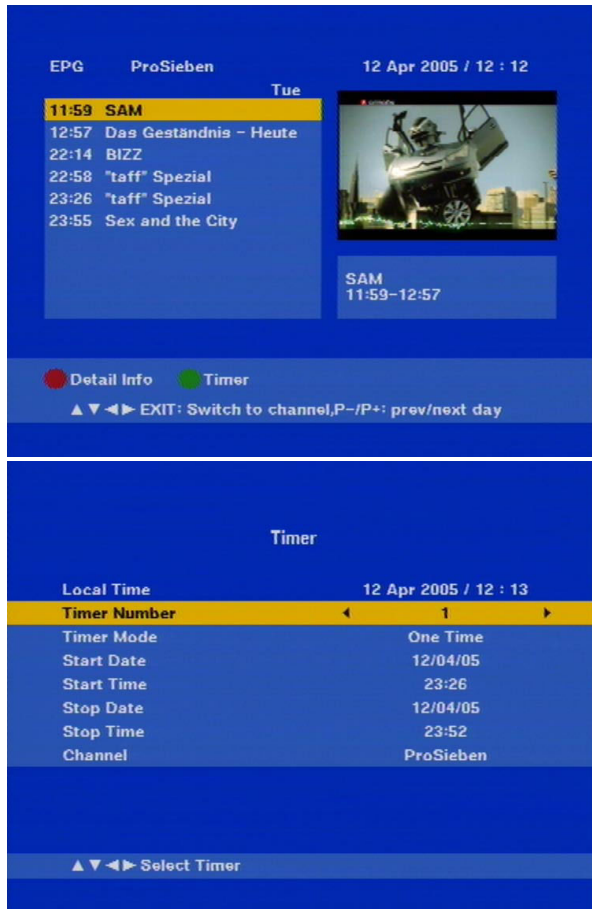
Videotext (Teletext)


The receiver continuously transmits the Videotext/Teletext signal, if available, to the TV set.


You can open and operate the Videotext/Teletext in the normal way using your TV's remote control.



Operation


Electronic Programme Guide (EPG)



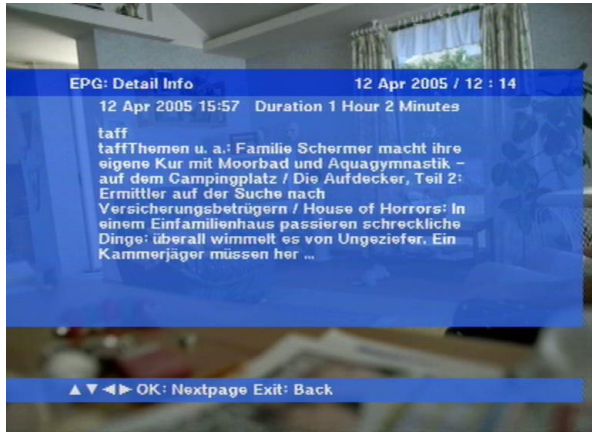
You can use the  button (Electronic Programme Guide) to display program information, provided this information is transmitted by the broadcaster.

Use the  buttons to browse through the displayed programmes.

To go to the next/previous day, press the  or  button respectively.

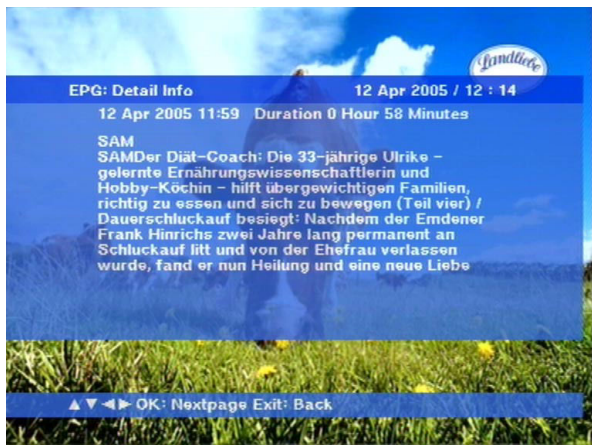
To preset a programme automatically, press the  button. The timer is then automatically set.

Operation



To view the details (Advance mode) in the EPG, press the **ⓘ** button. You will now see the following OSD (see above).

You can also view the details directly while the current programme is running by pressing the **ⓘ** button twice. You will now see the information you need about the current TV programme without having to switch to EPG mode (see screenshot below).







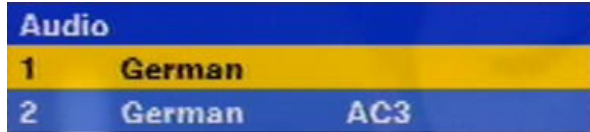
Note:

You must leave the programme on for a few moments to allow the programme information to load. If you press the **ⓘ** button while the current programme is running, you are switched to Advanced mode. This displays details about the current programme. The current programme is still visible in the background.



Operation

Audio

Press the  button to view the sound mode (TV or radio) being broadcast over the receiving channel. Select the sound with the   buttons and save it with the  button. If the channel is not transmitting language information the receiver displays "Unknown".




Pause and Zoom

You can use the  button to reduce the image and the  button to switch to freeze the image.

The Quality Button (Antenna Adjustment Help Function)

In addition to displaying the reception strength and quality, the receiver also features an audio signal help function to aid in adjusting the antenna:



Set the receiver to the satellite channel you wish to receive (e.g. Astra 19.2°: channels 1 to 100) and press the  button.

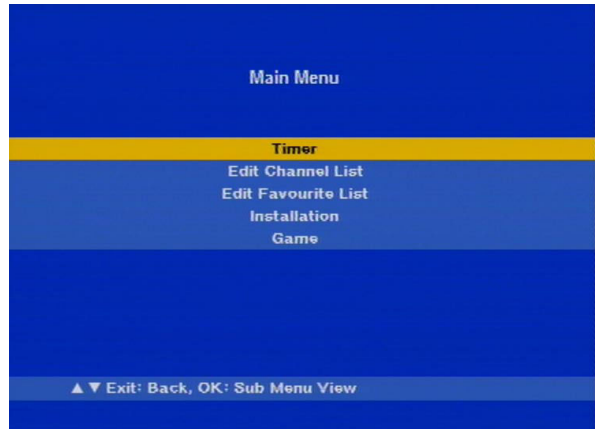
As soon as the quality display is activated, the receiver sends an audio signal whose frequency and repeat rate matches the reception signal.



Main menu

Opening the main menu (MENU button)

Press the  button to open the main menu, select the required sub-menu and then press the  button.

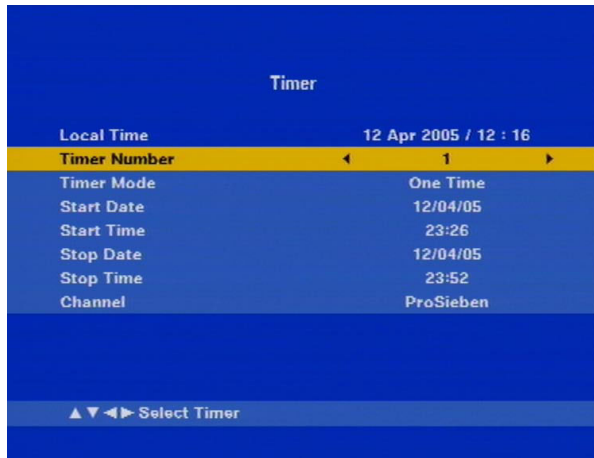


Five sub-menus are available. These are explained below:

- 1) **Timer**
Menu for setting timed recordings or for automatic stop
- 2) **Edit programme list**
This sub-menu allows you to sort, edit and delete channels and favourites
- 3) **Edit favourites list**
With this sub-menu you can organise channels (store, sort, edit and move)
- 4) **Installation**
This sub-menu is used for setting the LNB and antenna parameters, channel scan (needed for initial settings or for a change of antenna), setting up the system and the parental control function
- 5) **Games**
Two games are pre-installed

Main menu

Setting the timer



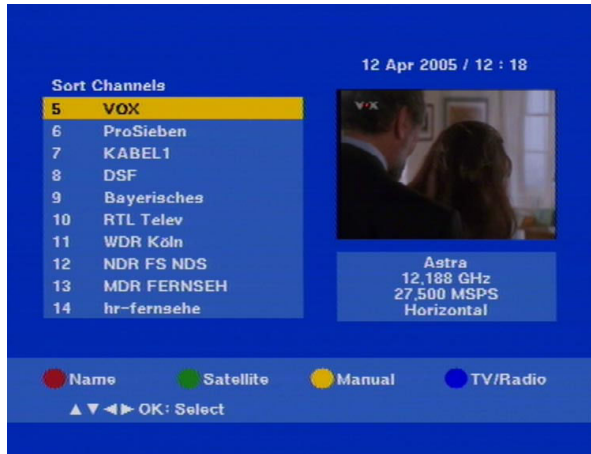
Note: The timer can be programmed either with the EPG (Electronic Programme Guide; see page 12) or as described below.

The clock must be correctly set so the timer is ready for programming (see "Installation Menu/System Setup/Setting the Time").

1. Programme the timer number (1 to 8)
2. Set the timer mode accordingly
3. The start date can be entered either from the calendar with the **OK** button or using the number keys
4. You must now enter the start time
5. The stop date is entered in the same way as the start date
6. Enter the stop time with the number keys
7. Select the channel by pressing the **OK** button and then using the **◀ ▲ ▼ ▶** buttons. If you wish to include a radio station in the timer, switch to radio mode with the **TV** button and press again to return to TV mode. To select a channel from the Favourites list, press the **TV** button. Press the **OK** button to copy the required channel to the timer menu
8. Press the **EXIT** button to exit the timer menu.

Main menu

Organising Channels and Favourites



Sorting:

1. Press the **MENU** button to open the main menu of the receiver
2. Choose "Edit Channel List" and press **OK** to confirm
3. Next, select the channel you wish to move with the **◀ ▲ ▼ ▶** buttons (the channel is highlighted yellow)
4. First press the **⏸** button "Sort". The "manual" sorting mode is selected with the **⏸** button
5. In the "move to..." prompt, enter the required channel number with the number keys and press **OK** to confirm
6. To exit the menu, press **EXIT**
7. Press **OK** to confirm the "Save sort order?" prompt
8. Key in the required PIN number using the number pad (the factory default is "0000")
9. Press **EXIT** to quit the menu.

Important!

Once you have confirmed a sort order you can no longer access the previous list.

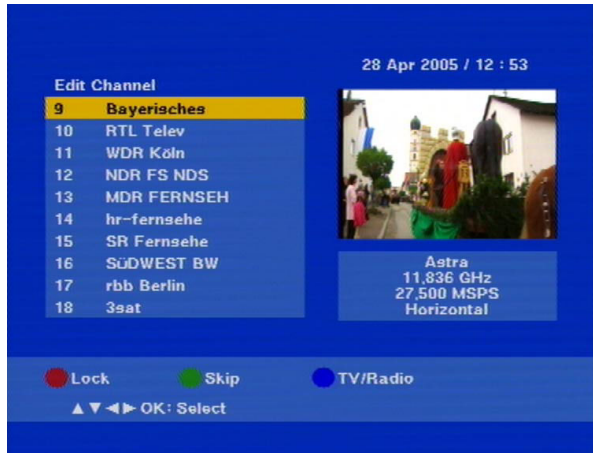
Main menu



Favourites:

1. Press the **MENU** to open the main menu of the receiver
2. Select "Edit Channel List" and press **OK** to confirm
3. Now press the **FV** button to access the "Favourites" menu
4. The four Favourites are displayed
5. Use the **▲▼** buttons to toggle between the displayed channels (the selected channel is highlighted yellow)
6. Choose the colour of the Favourites list to which you wish to assign the selected channel
7. When you press the required colour button, the number of the set Favourites list appears after the channel. You can also assign all four Favourites lists to any channel. Press the same colour button again to undo the choice
8. Press **EXIT** to quit the menu.

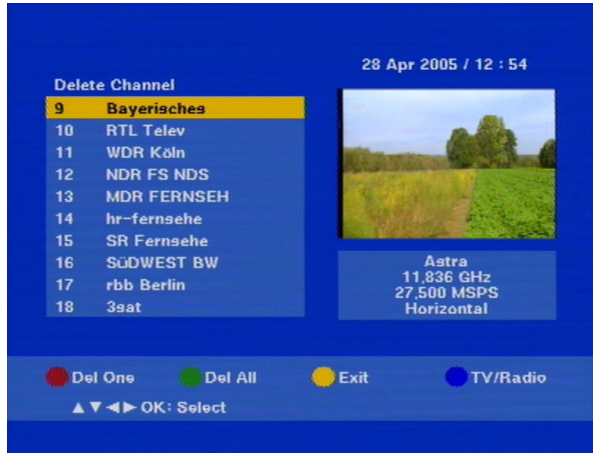
Main menu



Edit:

1. Press the **MENU** to open the main menu of the receiver
2. Choose "Edit Channel List" and press **OK** to confirm
3. Press the **EDIT** button to go to the "Edit" menu
4. Use the **▲ ▼** buttons to toggle between the displayed channels (the selected channel is highlighted yellow)
5. You have two options:
 - You can disable a channel by pressing the **LOCK** button (you will be prompted to enter the PIN code), or
 - You can skip a channel by pressing the **SKIP** button
6. To undo a channel disable or skip, press the same colour button again
7. Press **EXIT** to quit the menu.

Main menu



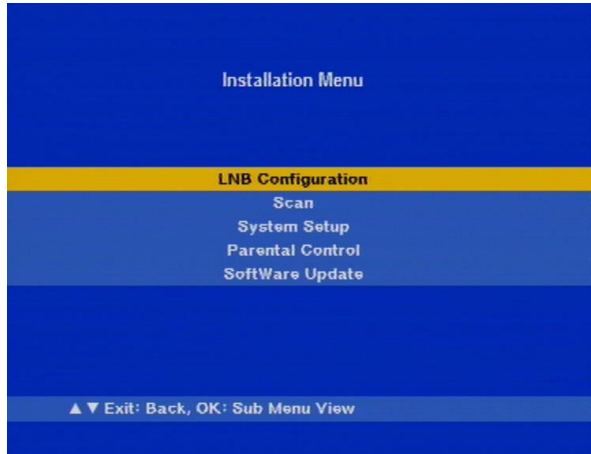
Delete:

1. Press the **MENU** to open the main menu of the receiver
2. Select "Edit Channel List" and press **OK** to confirm
3. Press the yellow button to access the "Delete" menu.
4. Use the **▲ ▼** buttons to toggle between the displayed channels (the selected channel is highlighted yellow)
5. To delete one or more channels, press the **Del** button (an "X" appears after the channel you are deleting)
6. Press the **EXIT** or the **MENU** button to delete the selected channel and return to the main menu
7. To delete all the channels broadcast from a satellite, press the **Del** button (a warning is displayed) and press **OK** to confirm your selection
8. You must enter your PIN and confirm it by pressing the **OK** button. Press **EXIT** to exit the menu unchanged.

Note:

Caution: If you delete one or more channels you will only be able to relocate them by running a new channel search.

Installation Menu



Matching the receiver to your satellite reception system:

1) LNB Configuration

Enter information about the antenna (satellite, LO frequency, LNB voltage, presence of a DiSEqCTM switch, DiSEqCTM-input, DiSEqCTM repeat, switch 22kHz)

2) Scan

Scan a transponder, or full satellite search; free-to-air channels only, or encrypted and free-to-air channels

3) System setup

Tune to your TV set and other customised settings or reset to factory defaults: You can restore the factory default settings with which your receiver was shipped.

Caution!

This action will cancel all the changes you have made to your receiver's setup.

4) Parental control

Disable menu access and password change

5) Software update

Update the operating software and channel list

Installation Menu

LNB Configuration

LNB Configuration	
Satellite	Astra
L.O. Frequency	9,750/10,600 GHz
LNB Voltage	On
DiSEqC Switch	V1.0
DiSEqC Input	1
DiSEqC Repeat	1
22KHz Switch	0/22K

▲ ▼ ◀ ▶ Select Satellite, OK: Satellite Setup Menu

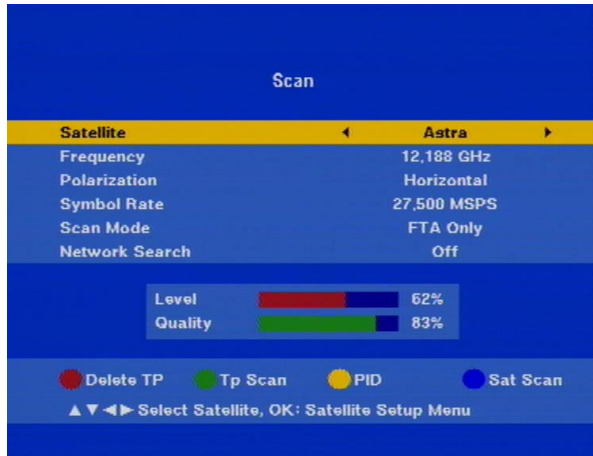
In this menu you can configure your receiver for your antenna:

- Select the satellite
- Select the local oscillator frequency
- LNB supply voltage
- DiSEqC™ switch V1.0
- DiSEqC™ input
- DiSEqC™ repeat: If the receiver is operated on a reception system with two or more cascaded DiSEqC™ switching matrices, the DiSEqC™ command must be repeated. In this case, set the menu option “DiSEqC™ Repeat” to “1” or “2”.
- Switch 22 kHz: This menu option is used to specify whether the 22 kHz signal is to be used to switch between the upper and lower frequency bands for a satellite or between two satellite positions.

The receiver is pre-programmed and shipped with an installation menu that is protected by the password “0000”.


Installation Menu





Scan (Channel Setup)





Channel scan:

Note:

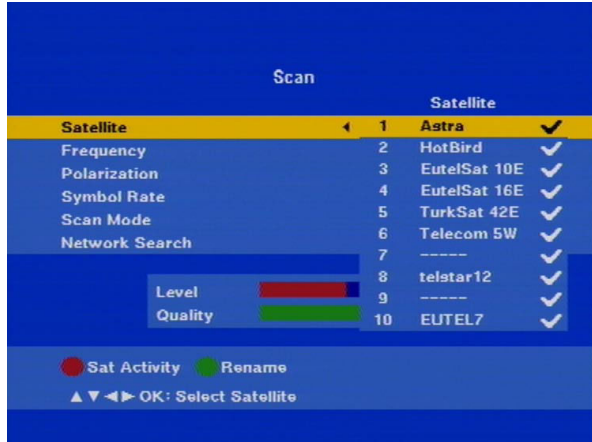
As well as displaying the reception strength and quality, the receiver also features an audio-signal help function to aid in adjusting the antenna. This help function can be activated in this menu using the  button

The  button “Delete TP” allows you to delete the channels of a transponder and the entire transponder. Use the  button to start the scan for a particular transponder, and the  button to start the channel search for the entire satellite. The receiver prompts you to confirm that you wish to delete the existing channels. If you confirm with “YES”, all the channels that are assigned to that satellite or transponder are deleted. The new channels are put on the main list. The scan is cancelled if you answer the prompt by selecting .

PID (Programme Identification) input: Press the  button, enter the video and audio PID and press the  button again. The channel is placed at the end of the main list, tagged “TV CH”.

Although the receiver is pre-programmed, it may be necessary to update the channel list, to add more transponders, or to programme other satellites.

Installation Menu



In this menu you can run the scan.

1) Satellite

Press the button to display the list of satellites, and select the satellite. You can also enter a new satellite here. Up to 16 satellites can be set up.

Recommendation:

When should the satellite scan be run?

If you do not know the transponder frequency for searching for a particular channel.

Installation Menu

Scan				
	TP	Freq	Pol	SR
Satellite	79	12188	H	27500
Frequency	80	12207	V	27500
Polarization	81	12226	H	27500
Symbol Rate	82	12246	V	27500
Scan Mode	83	12265	H	27500
Network Search	84	12285	V	27500
	85	12304	H	27500
	86	12343	H	27500
Level	87	12382	H	27500
Quality	88	12403	V	27500

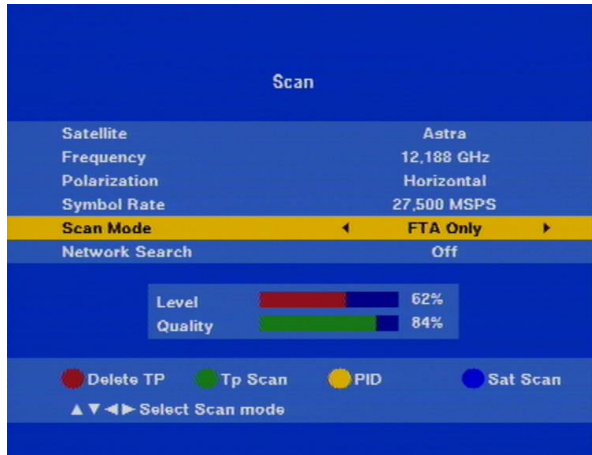
▲ ▼ ◀ ▶ Select TP, OK: Confirm, EXIT: Cancel

2) Frequency, Polarisation, Input Symbol Rate

Displays the parameters of the transponder you are using. Press the **OK** button to view the transponder list. Use the **◀▲▼▶** buttons to select the transponder and then press **OK** to confirm your choice.

Installation Menu

Searching for a New Channel using the Transponder Scan

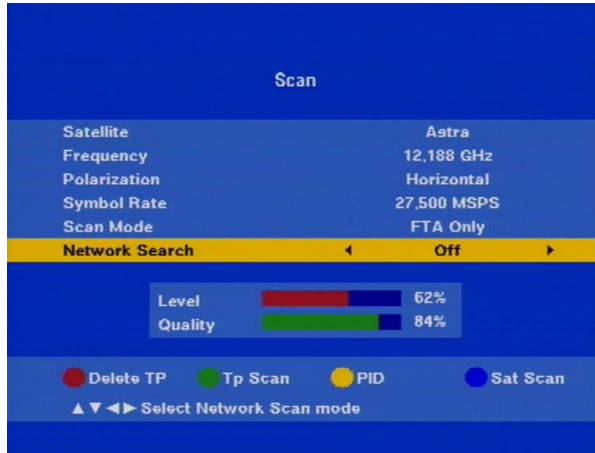


1. Press the to open the main menu of the receiver
2. Select the "Installation" menu and press to confirm
3. Then select the "Scan" menu and press again to confirm
4. Now select the required satellite using the buttons
5. Select "Frequency" and press
6. You must now press the button "Add"
7. Key in the frequency, the polarity and the symbol rate
8. Pressing the button will save your settings
9. Press to confirm
10. The "Search Network" option must be turned to "OFF" with the buttons
11. Now select the button ("TP") to start the transponder scan. Confirm with
12. The transponder is now scanned and the channels are added to the **end** of the channel list
13. Press the "Exit" button to quit the menu.

Installation Menu

3) Scan mode

Select the scan: All or FTA (free-to-air channels only) – if you scan for all channels, all channels will be stored, including the encrypted ones; otherwise only the free-to-air channels are stored.



4) Network search

If you select “YES” to this option, the receiver will automatically receive the transponder's frequency tables (if available) and add them to the transponder list for the scan.

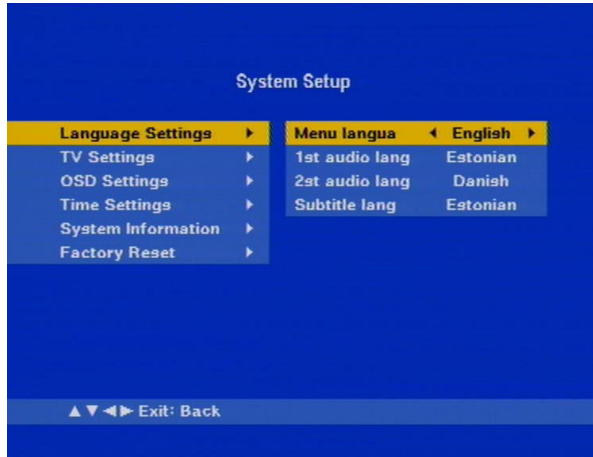
Note:

With some satellites this information does not match the actual data, so errors may occur when using this function.

Installation Menu

System Setup

Language Settings



Press **OK** to access the language selection. The language is selected with the **Left/Right** buttons. Press **OK** to confirm your selection.

The following languages can be selected :

German, English, French, Italian, Polish, Dutch, Portuguese, Czech, Hungarian, Spanish and Turkish.

The preferred languages for Audio 1, Audio 2 and sub-titles are also selected here.

TV Settings

Press **OK** to access the “TV Settings” menu. The language is selected with the **Left/Right** buttons. Press **OK** to confirm your choice.

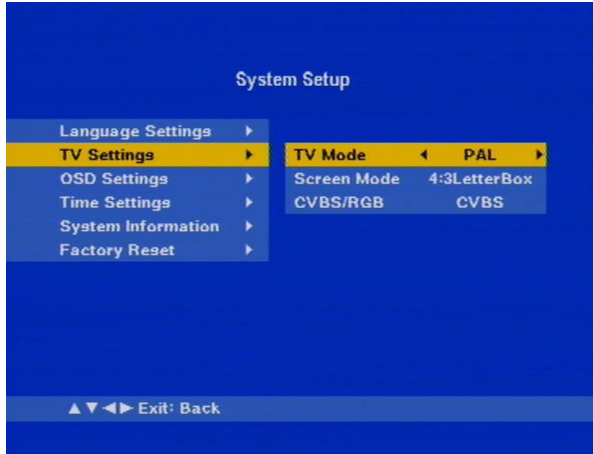
Select the video output standard (PAL, NTSC, SECAM, AUTO), screen mode (4:3 or 16:9) and output signal at the TV output:

CVBS: FBAS signal

Note:

The selection of the screen mode (4:3 or 16:9) always depends on your TV set, and not on the channel you selected!

Installation menu



OSD Settings (menu view)



Press **OK** to access the “OSD Settings” menu. The selection is made with the **Left/Right** buttons. Press **OK** to confirm your choice.

There are 10 different settings for screen transparency and 30 for setting the time for which the OSD is shown.

Installation menu

Time Settings



Press **OK** to access the “GMT Use” menu. The selection is made with the **◀▶** buttons. Press **OK** to confirm your choice. The time and date must be set to enable the receiver to display the correct information in information messages and for operation of the timer (as well as on the front panel in Standby mode).

The internal clock is set as follows:

- Apply the time transmitted by the satellite (default). The time difference between UTC (Coordinated Universal Time) and the receiver site (in Germany, + 1 hour in winter, + 2 hours in summer) must be allowed for in this case.
- If you enter “OFF” in the first field, you must set the time and date manually.

Note:

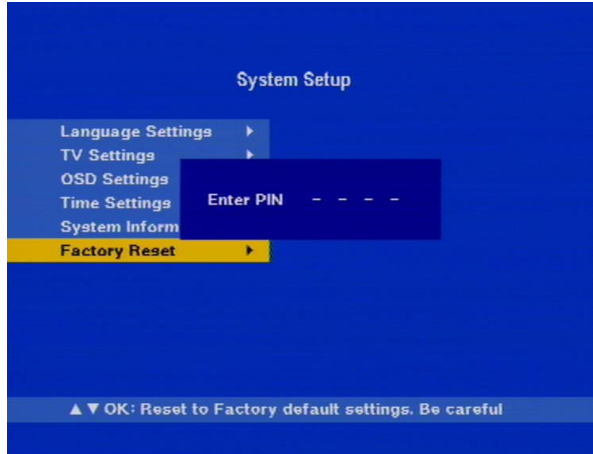
Some channels may not transmit the correct UTC time. In this case the receiver will display an incorrect time. To display the previous time, tune in to a different European channel and wait a few minutes for the receiver to display the correct time again.

Installation Menu

System Information

Display of the receiver's hardware and software versions.

Factory Reset



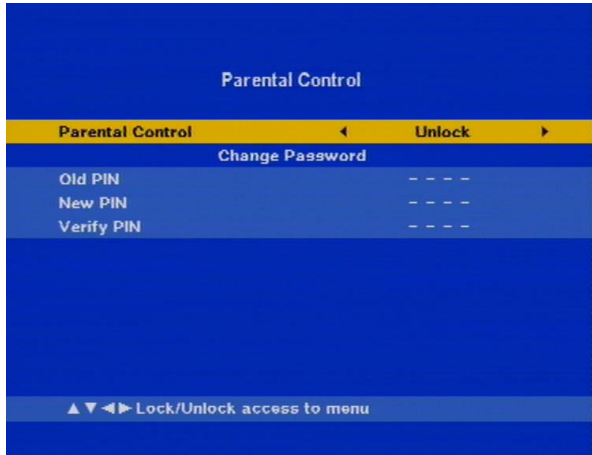
This menu is protected by the default password "0000". If you have changed the receiver's programming and want to reset it to its original setup when shipped, select this line. Press **OK** and enter the password. After about a minute the memory will be updated. Turn the receiver off and back on again at its power switch. Select the required menu language (see "Language Settings") and press the **OK** button to confirm.

Important:

The receiver is reset to its factory configuration. Any changes you may have made are lost. The channel list is also reset to its ex factory status.

Installation menu

Parental control



In this menu you can lock all the menus to prevent incorrect settings from accidentally being made.

All menus are disabled when parental control is activated.

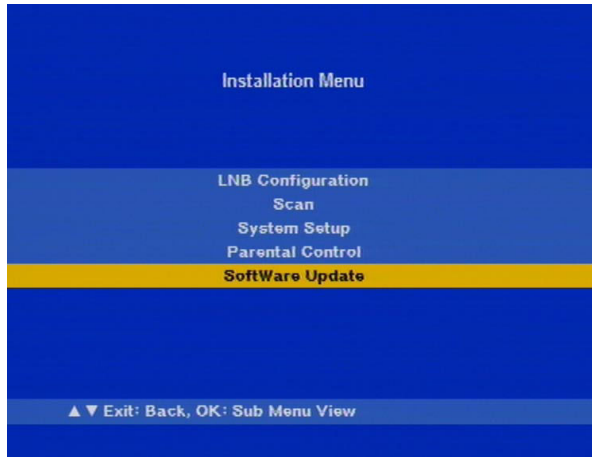
You can also change the PIN in this menu. To do this, enter your old PIN (the factory default is "0000"), then enter a new PIN twice.

Important:

If you change the password, be sure to make a note of it. If you forget your password the unit will require reprogramming at the factory, which is not covered by warranty.

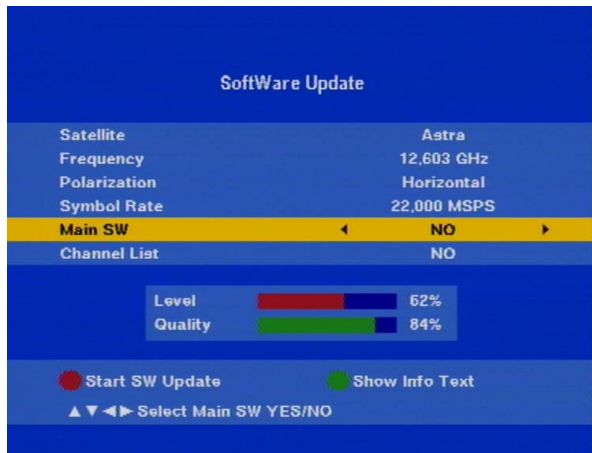
Software Update

Software Update over air



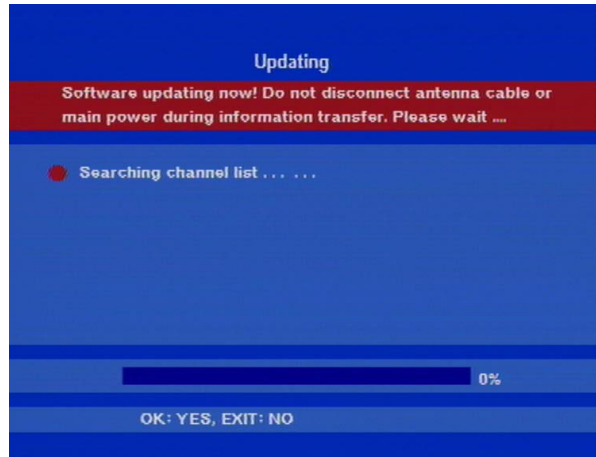
Thanks to digital technology, you can receive satellite updates of the software and programme list for your receiver. The “Software Download” sub-menu tells you whether new software or programme lists are available. The only requirement is that your satellite reception system is aligned with ASTRA 19.2° East.

Press **MEMU** to select the main menu, then use the **▲▼** buttons and **OK** to select the “Installation” sub-menu. Highlight the “Software Update” option and select it with “OK” (see above).



Software Update

Use the **▲▼** keys to select the required option and then with the **◀▶** keys set the required options (update the operating software and/or the channel lists) to “Yes” or “No” (see bottom picture on page 34).



When you press the **OK** button the “Updating” menu appears. Here you can review your selected update options. Now press **OK** to start the download. Alternatively press the **EXIT** button to return to the previous menu without any changes.

Software Update

Software Update via Internet

Important:

Updating requires a PC and a software cable (RJ11 to RS 232).

If there is a new software release for your DVB-S receiver you can download it from:

<http://www.kathrein.de/de/sat/news/update.htm>

The website also provides information and tips on software updating using the receiver's RJ11 data port. The required cable (RJ 11 to RS 232) can be ordered from our service centre, ESC in Grassau, at the following address:

ESC Electronic Service
Chiengau GmbH
Bahnhofstraße 108

83224 Grassau

Tel.: +49 8641 9545-0
Fax: +49 8641 9545-35 and 9545-36
e-mail: service@esc-kathrein.de
Internet: <http://www.esc-kathrein.de>

Note:

A factory settings reset is required following a successful software download. Your old password will no longer be valid following the software update. You will now have to enter the global default password (0786). For details of how to perform the factory reset refer to page 31.

Games

In the main menu, use the **▲▼** buttons to select "Games" and press **OK**. The following screen appears:

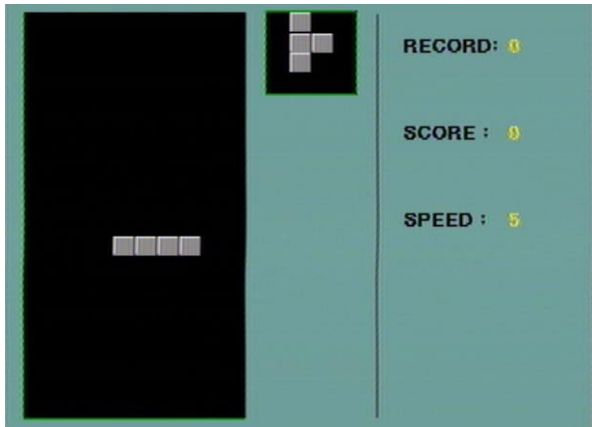


You can now choose one of the two games.

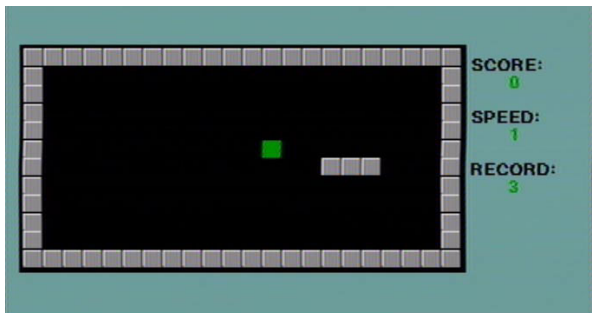
Note:

After selecting a game, follow the on-screen instructions. All games are played using the **◀▲▼▶OK** buttons:

Tetris:



Snake:



Functions and technical data

- Reception of free-to-air digital satellite TV and radio stations
 - Tuner with loop-through output
 - Stores up to 4000 channels
 - Electronic Programme Guide (EPG) with short programme description¹⁾
 - 8 timers; can also be programmed with the EPG
 - Suitable for downloading software via satellite and PC (RJ 11)
 - 4 Favourites channel lists
 - Automatic date and time generation via DVB data stream
 - On-screen display (OSD) in 11 languages (D, GB, F, I, E, CZ, PL, TR, HUN, P and NL)
 - 4-character LED display
 - Language selection for multilingual broadcasts
 - Electric audio output (SPDIF) for Dolby digital data stream (AC 3)
 - FBAS, S-VHS and RGB signal output programmable with Scart socket
 - Videotext/Teletext generation (for viewing on TV)
 - Automatic image format recognition 4:3 and 16:9 with optional output format
 - Channel scan
 - Manual entry of PID data possible
 - Channel slot sorting function
 - Infrared remote control
 - Power switch
 - External infrared sensor for concealed installation of the receiver (supplied)
- ¹⁾ Only displayed if this information is broadcast by the programme provider

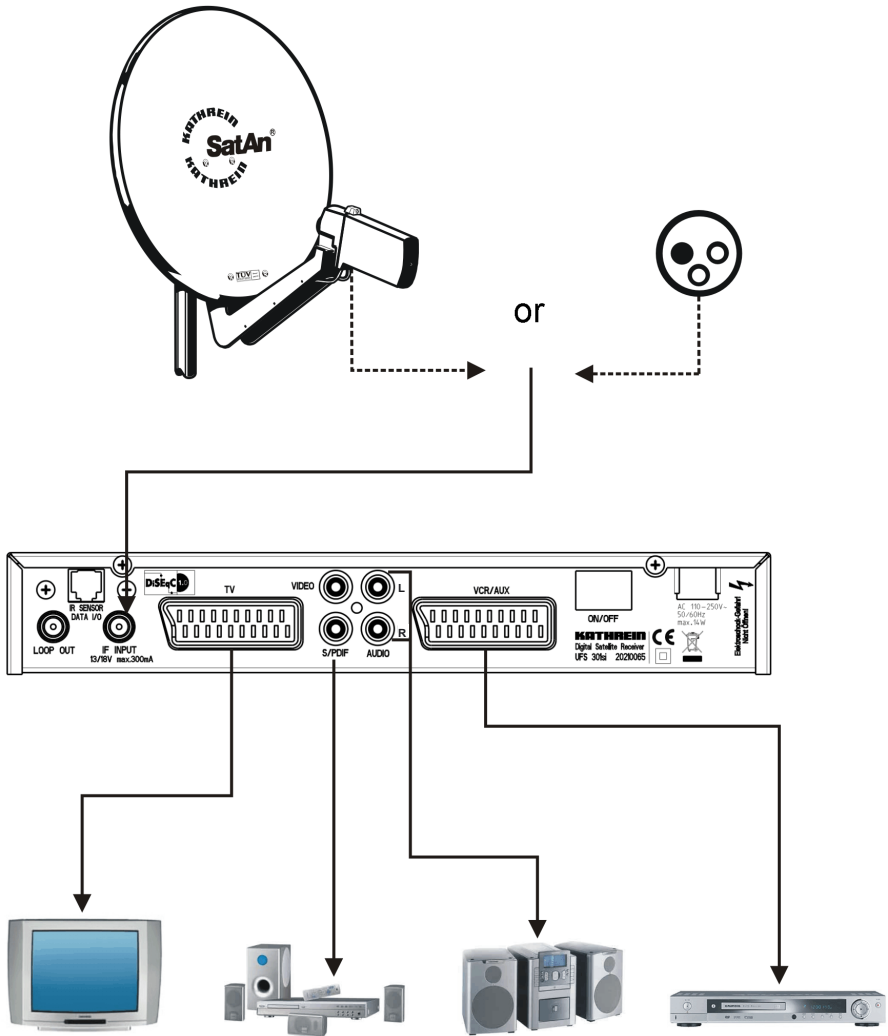
Functions and technical data

Technical Data

Designation		UFS 301si
Order number		20210065
Colour		Silver
HF properties:		
Input frequency range	MHz	920-2150
Input level range	dB μ V	44-83
Reception threshold (EB/NO)		< 4.5
TV system Video:		
Modulation, FEC, demultiplexer		DVB-S standard
Video resolution		CCIR 601 (720 x 576 lines)
Input data rate	MS/s	2-45
Video decoding		MPEG-1 and 2 compatible
Bit rate	MB/s	1.5-15
Frequency range	MHz	0.02-5
Output voltage	V _{ss}	1
S/N	dB	> 53
TV system Audio:		
Audio decoding		MPEG-1 and 2, Layer 1 and 2
Sampling rate	kHz	32/44.1/48
Frequency range	kHz	0.04-20
Output voltage	mV _{ss}	Typical 770
S/N	dB	> 65
Memory:		
FLASH	MB	2
SDRAM	MB	8
Processor clock rate	MHz	150
Power supply:		
Mains voltage	VAC/Hz	98-240/50
Power consumption (power/standby)	W	< 15/< 10
LNB supply vert./horiz.	V / mA	14/18/Max. 400
Connections:		
Sat IF input/output		2 x F socket
TV/VCR output		2 x Scart socket
Video/audio output		3 x Cinch socket
Audio digital output electric		Cinch socket
Data port		RJ 11
General:		
Permissible ambient temperature	°C	+5 to +40
Unit dimensions	mm	255 x 44 x 190
Weight	kg	1.3

Connection Diagram

Connection scheme of a DVB Sat receiver with connection of TV set, DVR (VCR) and hi-fi system.



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Antennen • Electronic

936.2810/-/0705/ZWT - Technical data subject to change.